AN ANALYSIS OF STATE PROGRAMS RELATING TO LAND AND WATER PLANNING AND MANAGEMENT

For

STATEWIDE 208 PROGRAM
WATER QUALITY BUREAU
ENVIRONMENTAL SCIENCES DIVISION
DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

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INTRODUCTION

This report was designed to be of value to the statewide 208 water quality planning effort by providing a description of existing state programs that influence the use of Montana's land and water resources. Because this report was prepared for the Department of Health and Environmental Sciences, programs administered by that Department are omitted from this study.

The authority to influence, manage, and regulate land and water use at the state level is primarily found in five departments. These are the Department of Community Affairs, Department of Fish and Game, Department of Health and Environmental Sciences, Department of Natural Resources and Conservation, and Department of State Lands. Excluding the Health Department, thirteen major laws direct these Departments to exercise control over specific land and water use activities through a system of permits, licenses, grants, land acquisition, and contracts.

To understand the function and impact of each law or program, the analysis for each has been broken down into: (1) a general summary of the law that forms the basis for the program, (2) a description of the administrative tasks and responsibilities that are required to carry out the law, (3) program support as indicated by numbers of existing and future staff and budget amounts, and finally (4) a brief evaluation of the program's effectiveness in carrying out the intent of the law and administrative changes that were suggested by administrators or others to improve the program performance.

This approach is intended to capsulize each program as a working entity and to provide a framework helpful for analysis of the effectiveness of each law and the administration of its implementation program.

DEPARTMENT OF COMMUNITY AFFAIRS

The Department of Community Affairs, under the authority of the Coal Board, administers the coal impact grants program. This is the only program the Department administers that has an identifiable impact on water quality.

Impact from Coal Development (Title 50, Chapter 38) 1975

Administering Agency - Montana Coal Board

Legislative Summary

The purpose of this law is to assist those local government units that have been required to expand their public services as a result of large-scale development of coal mines and coal-using energy complexes. These units of local government include counties, incorporated cities and towns, school districts and special districts. The law establishes a seven-member Coal Board which allocates approximately 13% of the funds derived from Montana's 30% severance tax on coal. Grants to these local governmental units are awarded on the basis of (a) need, (b) degree of severity of impact from coal development, (c) availability of funds, and (d) degree of local efforts toward meeting these needs. The statute directs the Board to give attention "to the need for community planning before the full impact is realized." Applicants for impact grants must show that their requests fit into an overall plan "for the orderly management of the existing or contemplated growth problems." Grant awards to impact communities exceeded $13.5 million during the July 1975 to December 1977 period. The Department provides staff

and administrative support for the Board.

Program Administration

Grants awarded to local governing entities generally fall under two categories. These are:

1) Public facility requests, such as those for water and sewer systems and treatment plants, schools and school equipment, libraries, etc.

2) Social service requests, such as those for public health nurses, judicial district, and library information dessemination services.

Approximately 90% of the requests are for public facilities.

A local government unit desiring an impact grant completes a pre-application form and sends it to the Board for review and approval. If it is approved, a full application is requested. This includes such information as:

1) project description;
2) area affected and whether or not area is multi-jurisdictional;
3) complementary sources of funding;
4) the project's conformance to a comprehensive plan;
5) whether or not the project is required by state or federal law;
6) amount of local effort expended.

The review process for both pre-applications and full applications includes staff review, evaluation of local tax effort, review by other affected agencies, and discussions at Coal Board meetings with local proponents of the proposed project.

Final decisions are based on Board member interpretations of available information on general criteria such as local needs and priorities, degree of possible impact, and local ability to provide partial project funding. Presently, no specific criteria exist to ensure consistency in Board decisions, although grants are awarded according to general legislative and policy guidelines (see legislative summary). Within these guidelines, it is difficult to determine the kind or amount of local effort that must be displayed before the Board can act on an application.

After awarding a grant, the Board enters into a contract with the local governing body. Contracts may legally commit coal tax revenues for up to ten years, although presently no contract runs for more than two years. "Payments" have not been allocated for more than the expected total revenue for the next two quarters of this biennium. To ensure that the rate of expenditure does not exceed the rate of revenue, the Board tries to maintain a margin of around two million dollars between their anticipated rate of revenue and the rate of expenditure.

The Department is in the process of identifying local governing entites that have or could potentially experience a 10% population growth during any three-year period since 1972. At least 50% of the coal severance tax administered by the Board must be allocated to such areas. In addition, the 1976 Legislature's appropriation bill required the Department of State Lands to certify that the area requesting a grant will in fact be affected by significant coal development.

Budget and Staffing

Only two staff members are directly responsible to the Board. These are the administrative officer and the administrative secretary. The program should have additional staff to research applications as well as to promote Coal Board activities.

Grants awarded to local governments presently total approximately 15,000,000 dollars since Board formation. Grants totaling approximately 8,200,000 dollars have been denied. $27,850 has been allocated in FY 77-78 for the administrative officer's and secretary's salaries, as well as 64,250 dollars for the operating budget. Total program budget is now about 12,800,000 dollars of which approximately one-half represents unexpended grant monies from previous quarters.

Program Evaluation

Forty-three grants have been awarded totaling almost 15,000,000 dollars. Fourteen of these grants were for water and sewage treatment plants and distribution systems and 11 were for school-related facilities. The majority of water sewage project proposals were approved and only eight of those proposals were among the 28 projects tabled or denied. School remodeling and new school construction were the next most common proposals and used the majority of funds (approximately 9,000,000 dollars).

It is evident then that those communities faced with the prospect of sudden growth found the expansion of water and sewer as well as school facilities a priority need. This program seems to be meeting those needs. Improved water and sewage systems certainly results in

more efficient water use and improved water quality.

The general provisions of the law are being met. However, the following problems need to be addressed:

1) The success of this program, and several others, depends on the present actions by three major coal companies. In May of 1978, at the request of the utilities they serve, the coal companies paid the 30% coal severance tax under protest. In addition, on June 20th they filed suit in state district court charging that the tax seriously impairs interstate commerce. It is unsure whether the protested revenue will be held in an escrow account or can continue to be used until a decision is reached in court. Such a decision could take five years. An opinion, stated by a University of Montana political science chairman, indicated that the tax imposed on coal did not differentiate between coal burned in-state and that shipped out-of-state; it was simply a tax levied on coal and therefore does not impair interstate commerce. He considered the tax as a valid state levy and a "national attempt to level out the...costs of coal development."* Money may be granted by the Coal Board based on its future expected revenues. At present the Board is committed slightly beyond its next quarter's anticipated revenues. A court decision favorable to the coal companies could result in a lower coal severance tax, which would lower tax revenues available for current obligations and future allocation.

* Great Falls Tribune - 6/12/78

2) A method of weighing or prioritizing the submitted project proposals which meet the three criteria under which grants are awarded should be established.* A study is underway in the Department to provide the Board with indicators of whether or not a community is or will be impacted by coal mining activities. A final report is expected to be submitted to the Board by November of 1978.

3) Board members often depend on their personal knowledge of an area in making decisions on a local government's eligibility to receive grants. Data gathered on these entities should be incorporated into Board decisions and written up as findings of fact to be consistent and defensible.

4) Because of the number of requests for coal impact grants by local governing bodies, any pertinent information indicating a community's needs aids in Board decisions. If a state or federal statute requires completion of a particular project, the local entity should be required to cite the statute that mandates completion of a project to enhance its chance of receiving the grant.

5) While the Board has the authority to award coal impact grants to local governing bodies, they have no way of assuring that the grant money is being administered by the community in a judicious manner. The law requires that governing bodies award contracts to

* See Legislative Summary

the "lowest and best" bidder. There should be a provision that requires the governing body to provide a narrative of their reasons for selecting a particular bidder to the Board for their review and comments prior to final contract award.

6) Other funding sources, besides the coal-impact grants, are available to governing entities for the construction of public service projects. Few communities are aware of these sources or how to apply for such funding. The Coal Board should make this information available to any community requesting assistance.

7) The Department of State Lands must certify that an area is eligible for grant assistance before local governments may receive coal impact funds. Certification is based on short-term effects of coal development and ignores the potential for long-range impacts. Additionally, State Lands is hesitant to indicate that an area has the potential for coal development and thereby imply that mining permits are automatically available in that area. Several years lead time is necessary to plan for these impacts and area certification should reflect that need.

DEPARTMENT OF FISH AND GAME

The Department administers four laws that have varying impacts on water use and quality. Decision-making authority rests with the Fish and Game Commission for private or local government projects affecting streams. The Division of Parks and Recreation controls the leasing of cabins on several sites adjacent to reservoirs in the state.

1. Fish Restoration and Management Projects (Title 26, Ch. 14) 1951 A

Administering Agency - Fisheries Division

Legislative Summary

This chapter authorizes the Department to match money from the sale of fishing licenses with funds allocated under the federal Dingall-Johnson Act for fish habitat restoration projects and acquisition of land from federal, state, or private individuals for these purposes. The Department may also use these funds to establish fish conservation and management projects on federal, state or private land.

Program Administration

"Projects," as far as this law is concerned, can be divided into fish hatcheries, fish nurseries, and fish ladders. Construction projects in the Fisheries Division can include repair and maintenance of fish hatcheries, dam repair and streambank protection. Most of Montana's seven state fish hatcheries were constructed in the 1920's and 30's. The Department maintains these hatcheries but does not

plan to construct any new hatcheries in the near future.

Under this law, the Department may require fish ladders on any dam that, in its consideration, significantly disrupts the movement of fish. This particularly is true where the construction of a dam prohibits the fish from reaching their spawning grounds.

The Department did require the construction of a fish ladder on DePuy Dam in Park County, but a court ruling overturned their decision and upheld the dam builder's contention that the operation of the fish ladder would interfere with his water right. The Department has not attempted to exercise their authority since that time.

Budget and Staffing

Funding for the maintenance of hatcheries, purchase of fish feeds, stocking trucks, etc. does not come from the Dingall-Johnson Act. Fisheries division funding is derived primarily from fishing license money. Approximately 1.8 million dollars including Dingall-Johnson funds are generated from license sales for FY 78. This is broken down into approximate figures of: $750,000 - hatchery maintenance, $500,000 - Dingall-Johnson funds, and $500,000 - Administrative costs.

Although Dingall-Johnson funds can be used for land acquisition, present land acquisition transactions are so time consuming and cumbersome that these funds are primarily used for studies to document the need for fisheries projects.

These funds support a staff of 68 people: 24 run and maintain fish hatcheries; 7 administer the program from Helena; 30 manage non-hatchery projects; and seven are fish and wildlife biologists.

Program Evaluation

None of the construction activities of the Fisheries Division contributes to, or causes any significant water pollution. Conversely, they depend upon unpolluted streams and ponds for their fish management program. Only the construction of a new fish hatchery might cause temporary stream pollution. While the activities authorized under this law neither improve nor contribute to water pollution, it was included because of seeming impact these projects could have on stream quality.

2. The Natural Streambed and Land Preservation Act of 1975

(Title 26, Ch. 15, Sections 1510-1523) 1975 A.

Administering Agency - Fisheries Division

Legislative Summary

When any individual or corporation plans construction that would modify or alter any perennially flowing stream this act provides for notification of the local conservation district supervisors or, in the absence of a district, the county commissioners. If the proposed project would alter or modify the stream, and is determined to be a *"project" the district supervisors or county commissioners must then notify the Department of Fish and Game. The Department may request an on-site inspection. An inspection team is made up of a district conservation supervisor, a Department representative and the applicant. They may recommend approval, denial, or modification of the project.

While authority for approval, modification or disapproval of the project rests with the conservation district supervisors or county commissioners, their failure to follow team recommendations can result in appointment of an arbitration panel that makes the final decision. The arbitration panel consists of three members chosen by the senior judge of the judicial district in which the dispute takes place. This act in no way affects existing or vested water

* According to the act "project" means a physical alteration or modification of s stream...which results in a change in the state of the stream...(Sec. 1512(15))

rights and has an emergency procedure when safeguards are deemed necessary to protect life or property. The act contains a criminal penalty section that may be enacted when a violation occurs.

Program Administration

Guidelines drawn up by the Department of Natural Resources and Conservation are used to determine if any construction activity in, or adjacent to, a stream should be considered a "project." The landowner proposing the construction notifies the District Supervisors or Commissioners, who then decide if the proposed construction is a "project" or "non-project." In either case, the Fisheries Division is notified and decides if the proposed action requires an inspection team. If a field inspection is completed, recommendations are proposed to the landowner describing how the project should proceed. Almost without exception, team recommendations have been accepted by the Board of District Supervisors. Any decision by the Department to arbitrate is to be made by the Director and not by the Department's representative on the inspection team.

All Supervisors have adopted the Department of Natural Resources and Conservation's guidelines for projects in whole or in part. One District has excluded gravel removal and its resultant stream modifications from the Department review.

Budget and Staffing

There are no exact figures for administration of this program but

cursory investigation reveals that about $250,000 is budgeted for FY 78. Staffing includes one full-time coordinator. Field fisheries biologists and regional fisheries managers review the projects and send reports to the coordinator, but they do so without specific funding. All budgeting, to date, has come from State Fish and Game funds.

Program Evaluation

This seems to be one of the more effective laws for monitoring and regulating stream modifications.* The structure of the program and team make-up have provided recommendations that have, with only one exception, been followed by the District Supervisors. In the last two years, over 50% of the approximately 3,000 project requests have been inspected. Violations have been resolved without litigation through recommended project modifications that landowner applicants have accepted. To date there has been no litigation.

There is a public benefit clause which provides for the request of supplemental money for project construction if such project is deemed to be of public benefit.

There are several shortcomings in the law that should be addressed. (1) District Supervisors are required "within five days of receipt

* See New Hard Rock Law, Renewable Resource Development Act, Floodway Management and Regulation, Disposal of Slashings and Forest Debris and the Montana Water Use Act.

of a notice" (for a proposed project) to determine if the proposal is a "project" and send it in to the Department. This is an unrealistic time frame since Supervisors usually meet monthly. This time limit should be extended or at least be made more flexible.

(2) Monitoring provisions to assure compliance to the law do not exist. Except for occasional spot checks due to complaints, there are few ways of knowing if project modifications are carried out by project sponsors.

(3) In many cases, District Supervisors label irrigation works as "non-projects" to exempt them from review. This needs clarification in the law.

3. State Parks (Title 62, Ch. 3) 1939 A

Administering Agency - Division of Parks and Recreation

Legislative Summary

Under this act the Department of Fish and Game may acquire and manage, by purchase, lease, gift or condemnation, areas for parks, historical sites, monuments, recreation areas and fishing access sites.

Program Administration

The Division of Parks and Recreation has little direct control over water use or water pollution-causing activities. Any lands administered by the Division are managed so as to comply with existing water quality standards and they rely on the county sanitarian or State Health Department for enforcement. No lands have been acquired specifically with water quality preservation or improvement in mind.

The only recreation sites where the Division has authority to control pollution-causing uses are on three areas administered by the Department. The Department leases cabins on State Department of Natural Resources and Conservation land adjacent to Painted Rocks Reservoir and Deadman's Reservoir and on U.S. Bureau of Reclamation land at Canyon Ferry. The Division administers the renewal of cabin leases and changes in cabin ownership, maintains access to recreation sites within these land holdings, and generally oversees the use of the cabins. The Division has authority to evict cabin users for causing water pollution or require them to modify existing

septic systems.

Budget and Staffing

Presently the park manager is responsible for cabin site administration at Canyon Ferry. The FY 1978 budget for cabin site administration is $19,000.

Program Evaluation

The potential for water pollution is greatest on cabins leased at Canyon Ferry. The 266 cabins are concentrated in two locations adjacent to the Reservoir. Conversion of cabins from seasonal to year-round occupancy combined with old inadequate septic tanks could result in seepage of sewage into the Reservoir. Presently, there is no way to accurately detect nutrient discharge into the Reservoir. Test wells are to be drilled on the leased land in the near future to monitor possible pollution. Because of the wording of its original contract with the Bureau of Reclamation the Department has no authority to limit year-round cabin use. The continued conversions of cabins to full-time residential use could pressure the Department into year-round road maintenance and snow removal. A study is underway to determine if the increased services that will be required of the Division can be balanced by increased lease fees. The Division also requires updating of inadequate sewage systems by lease holders upon lease renewals, changes in ownership, or visual evidence of pollution.

4. Stream Preservation Act (Construction and Hydraulic Projects Affecting Fish and Game) (Title 26, Ch. 15, Sections 1501-1509) 1965 A

Administering Agency - Ecological Services Division

Legislative Summary

Any hydraulic or other project constructed or operated by a state agency or political subdivision that would obstruct, damage, or modify the natural form of any stream must be approved by the Department of Fish and Game. If any recommendations proposed by the Department are no acceptable to the applicant, an arbitration committee of three residents of the affected judicial district or districts may be appointed by a district judge to make the final decision on the proposed action.

Program Administration

All state and local governments, municipalities, and subsections of government proposing projects in or adjacent to a stream must notify the Ecological Services Division. Irrigation projects or emergency stream modifications are exempt from this law.

The project must be reviewed by the Fish and Game Commission if it would significantly alter or impact the water course. Of the approximately 1,200 projects reviewed over the last several years, the majority of projects were reviewed by the Department rather than the full commission. In his capacity as Commission Secretary, the Director may review and make recommendations on project proposals.

There has been only one instance of full Commission review and this involved a county and U.S. Corps of Engineers project. The majority of potential problems surfacing as a result of Division reviews have been resolved without Commission action. Division recommendations have generally been followed by applicants and only once has the Commission required an arbitration committee to resolve a problem.

A recent law provision requires the Department to object in writing to the Commission if any proposed federal action adversely affects fish and wildlife values. The Department has memoranda of understanding and verbal agreements with the U.S. Bureau of Land Management, Soil Conservation Service, Forest Service, and Federal Highway Administration requesting project review. However, there is no enforceable remedy at the state level.

The law states that projects affecting a streambed and its banks are subject to review. The Department interprets that to mean any project potentially affecting a stream and does not define any distance from a streambank.

Budget and Staffing

Program administration in Helena requires one person's time and is budgeted for approximately $40,000 including salary and expenses. There are seven regional fisheries divisions employing approximately 20 persons for the review of these sites. This function also is required in the Streambank Preservation Act and uses the same staff.

Program Evaluation

Individual review and decision-making by the Department director and his staff have lessened potential time constraints inherent in the full Commission review process. An average of approximately 12 projects submitted monthly requires a level of decision-making short of full Commission action.

Two kinds of projects continue to cause stream degradation problems: these are irrigation and "emergency" projects. It is very difficult to prove that "emergency" projects are not legitimate and the burden of proof rests with the Department even though sometimes a problem may be identified before it becomes an emergency. Irrigation district projects are exempt from review, including projects which are not for actual irrigation purposes such as streambank stabilization. Even though these kinds of projects are reviewed under the Natural Streambed and Land Preservation Act, (see page) they remain difficult to review and administer.

Anyone constructing projects in violation of this act may be fined from $100 to $1,000. This amount is considered insufficient by the Division staff to discourage such violations.

Because the arbitration committee is locally appointed and subject to local interests, it is sometimes difficult to have the contested project impartially appraised and properly constructed according to Departmental recommendations. In some instances, completed projects receive Department staff review. The majority, however, are not monitored for correct completion.

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Seven laws administered by the Department of Natural Resources and Conservation give direct regulatory authority to the Boards of Natural Resources and Conservation and Oil and Gas Conservation as well as the Departments' Forestry Division. OIl and gas extraction, timber cutting and fire protection, floodplain regulation, siting of energy facilities, and water adjudication are regulated in varying degrees by the Department.

Conservation of Oil and Gas (Title 60, Ch. 1) 1953 A

Administering Agency - Oil and Gas Conservation Division

Legislative Summary

The Board of Oil and Gas Conservation has the authority to regulate companies operating in oil and gas fields. The board: (1) requires a permit prior to drilling oil and gas wells, (2) regulates the spacing of these wells, (3) establishes technical standards for use of drilling equipment, (4) regulates and sets forth approved methods for disposal of salt water and oil field wastes, and (5) requires that non-producing wells be capped. The Board also requires restoration of these areas by the well owners. The Department or Board may reclaim land that has been disturbed by abandoned oil and gas wells if ownership cannot be established.

Program Administration

Rules, regulations, permit standards, and licenses cover almost all phases of oil exploration and drilling. However, monitoring com-

western third of the state. Additional staff will be needed to monitor this area.

Bonds have been adequate to ensure site reclamation, except in northeastern Montana where one site required departmental funds to complete restoration.

Brackish water is often found in association with oil drilling. This may be disposed of in lagoons or injected through abandoned or "dry" wells, into rock formations considered safe and non-polluting by the petroleum engineer. There are no requirements for monitoring wells in the drilling areas for water pollution and in a few cases brackish water from drilling operations has found its way into nearby domestic water wells.

An amendment to the law will be introduced by the Board to require the flaring of gas associated with oil extraction in order to help protect air quality. Presently, most oil drilling operations allow the gas to escape into the atmosphere because it is too expensive to pipe it to a storage location.

pliance with these criteria is difficult. Only five field staff monitor all of Montana's oil and gas drilling activities. They are located in Billings, Glendive, Havre, and Shelby. A petroleum engineer located in Billings oversees the Division's field operations.

Because of minimal site disturbance associated with drilling activities, little restoration is needed; restoration bonding is from $5,000 for a single well to $10,000 for any number of wells over one. Before bonds can be released, abandoned wells must be capped and the site inspected for proper reclamation.

Budget and Staffing

The division employs 14 people and has an operational budget of $329,000 for FY 1978. Its budget comes entirely from earmarked revenue funds derived from oil and gas drilling permits and license fees.

Because of increased drilling the Division will request two additional field inspection staff during the 1979 legislative session.

Program Evaluation

Limited budget and staffing coupled with a surge of interest in oil and gas exploration places a lot of responsibility on field inspection staff. Recent indications of oil bearing strata in the *"Rocky Mountain Overthrust Belt" has encouraged increased oil drilling in

* The "Overthrust Belt" is an area of mountains approximately 40 miles wide between Glacier and Beaverhead Counties consisting of numerous faults or geologic displacements that have trapped pools of petroleum.

Disposal of Slashings and Forest Debris (Title 28, Ch. 4) 1927

Administering Agency - Forestry Division

Legislative Summary

Any cutting or thinning of timber or timber stand improvement on private land must be done in accordance with a fire hazard reduction agreement with the department. This agreement is also required for disposal of forest debris resulting from all right-of-way clearance for projects such as powerlines, pipelines, and roads. The operator is responsible for fire hazard reduction, unless the department agrees to assume this reponsibility.

Program Administration

Under this law, any operator removing timber from private land must enter into a hazard reduction agreement with the State Division of Forestry. Initial purchasers cannot legally obtain logs from operators without proof of compliance, i.e., the hazard reduction agreement. To further insure that the hazard reduction work is done, the purchaser withholds Five Dollars ($5.00) per thousand board feet (MBF) from the log purchase price which is then forwarded to the Division. This money serves as a cash performance bond which is returned to the operator when the logging area has been inspected to certify that the work is done. The burning of slash and forest debris must be carried out concurrently with timber cutting. A two (2) percent inspection fee is deducted from the withheld money.

For right-of-way clearing, a ten day prior notice is required but no hazard reduction agreement is necessary unless commercial products

are removed from the right-of-way and taken to a purchasing mill.

Budget and Staffing

The 1978 Fiscal Year Budget for administration of the slash law is:

Personal Services	$72,435
Operating	14,000
Capital Equipment	6,500
TOTAL	$93,635

There are approximately five man years of time expended within the Division. This is divided into one full time clerical position, about 1/3 of a staff position and approximately 20 field personnel, all performing some hazard reduction work.

Program Evaluation

The Division of Forestry receives no specific appropriation to administer this law. The 2% inspection fee has provided insufficient funding to administer the program and other Division program funds are being used to administer the law. The Division, therefore, generally lacks the staffing and funding to administer their responsibilities and, therefore, is proposing to revise the law to help solve these problems. They plan to request that the 2% inspection fee be changed to a 10% administration fee to more fully fund the program and provide for the inspection of a greater number of logged areas. They are also asking for injunction and lien provisions pertaining to purchasers to insure that withheld monies are forwarded to the State and to attach sufficient property to

cover the payment due should the mill fail to report as required. The majority of operators are disposing of their timber debris and only in a few cases has the Forestry Division had to assume the responsibility.

Although the foresters administering the law would like to address water quality in their hazard reduction prescriptions, they cannot legally do so. They do recommend keeping slash out of waterways and they do make operators aware of the State Streambed Preservation Act and water quality laws but they do not have the authority to directly incorporate any requirements under these acts in the Hazard Reduction Agreement.

Poorly constructed skid trails and logging roads causes the majority of soil erosion on logging areas. Prevention of this problem is difficult as there is no forestry practices act controlling these activities. It could be handled through Conservation District ordinances or enforcement of water quality laws administered by the Department of Health. A forestry practices act had been introduced in two of the last three legislatures but it was defeated on both occasions.

Floodway Management and Regulation (Title 89, Ch. 35) 1971 A

Administering Agency - Floodway Management Section

Legislative Summary

In Montana there are two separate and distinct programs for floodplain management. One is mandated by state legislation enacted in 1975 (Floodway Management and Regulation Act, Section 89-3501 et seq., R.C.M. 1947) and the other is the National Flood Insurance Program enacted in 1968 and administered by the Department of Housing and Urban Development.

The state program places the initiative for floodplain land-use regulation at the local government level, but also provides for state enforcement of floodplain regulations if local governing bodies fail to act.

The Board of Natural Resources and Conservation has the authority to designate both the 100-year frequency floodway (the channel carrying the largest volume and higest velocity of floodwater) and floodplain (the total area inundated by water) of every water course in the state and to restrict the uses permitted within the floodplains. Once the Department of Natural Resources and Conservation has designated a floodplain, local governing bodies have six months to adopt land use regulations consistent with Board guidelines. The Department may impose regulations if the local government does not adopt its own. All non-conforming uses or structures proposed for delineated floodplain areas must receive a permit from the local governing body, or from the Department if the local unit fails to act.

If locally adopted land use regulations for the designated area meet Department standards, the local governing body may administer the permit system to allow certain activities within the floodplain. Existing uses and most open space uses are allowed without permits in the floodplain area.

Program Administration

This program is implemented on a stream-by-stream basis in a series of several successive steps. A chronological approach to the law may best explain how it functions.

The first step toward implementation is the completion of a floodplain delineation study. The law requires that the floodplain area subject to flooding by a "100-year frequency flood" be used as the basis for establishing floodplain land-use regulations. Determining 100-year flood limits requires a hydrological study and survey of the stream in question. This may be completed by the Department, U.S. Geological Survey, Corps of Engineers, or Soil Conservation Service.

Following the completion of a floodplain delineation study, the Department must hold a public hearing. Persons contesting the floodplain lines shown on the study maps can present their own data and testimony at these hearings. If substantial map changes are required as a result of the hearing, floodplain boundaries are modified and a subsequent hearing is required.

After the hearing(s), the Board formally establishes the delineated area as a designated floodplain. Once the floodplain has been designated, the local government has six (6) months to adopt floodplain land-use regulations at least as stringent as the state minimum standards. If the local government fails to adopt regulations within the six-month time period, the Department is authorized to require permits and enforce the state minimum standards. Local regulation is encouraged by a provision in the law that gives local governments the enabling authority to specifically regulate floodplain land-use through a building permit system.

As of March 1, 1978, 24 different study areas totaling about 1,100 stream miles have been established as designated floodplains by the Board. Local floodplain regulations have been adopted in almost all of these areas. As of March 1, 1978, 55 Montana cities and 11 counties are participating in the National Flood Insurance Program.

National Flood Insurance Program

Many communities in Montana are affected by both the state floodway law and the National Flood Insurance Program. Those communities not presently affected by the state law are obligated to enter the Flood Insurance Program within one year after receiving floodplain maps from the Department of Housing and Urban Development.

The primary goal of the National Flood Insurance Program is the same as the state floodplain management program, i.e., sound regulation of land uses in floodplains. In addition, the Flood Insurance Program

provides low-cost, subsidized flood insurance to those who are already located in a flood-prone area. Thus, the insurance serves to encourage land use regulation and, at the same time, to indemnify potential flood losses to existing flood-prone property.

The Flood Insurance Program is administered by the Department of Housing and Urban Development (HUD). One of the key provisions of the Flood Insurance Act requires HUD to notify and furnish a preliminary flood hazard map to all flood-prone communities in the nation. Upon receipt of this notification, the affected community has one year to adopt some minimal land-use regulations and to apply for participation in the Insurance Program. If a community fails to act within the alloted year, some forms of federally controlled lending assistance, such as FmHA and HUD assistance, banks operating with FDIC funds, are cut off within the identified flood-prone area.

Budget and Staffing

The Floodplain Management Section is part of the Engineering Bureau and employs only two people. There are no funds available to hire additional staff at this time. Total administrative budget for the floodplain program totaled $47,000 in FY 77, and $43,000 for FY 78.

Program Evaluation

Cooperative implementation of both the state law and the Federal Flood Insurance Program is proving an asset to the administration of both programs. The state regulations, for example, are adequate to meet the construction standards to make communities eligible for the Flood Insurance Program. The hydrologic engineering studies and state wide

mapping of flood-prone areas for federal flood insurance purposes is also proving to be a valuable tool for floodplain delineation under the state law.

Because floodplain delineation is on a stream-by-stream basis, it may take as long as 100 years at the present level of funding before all flood-prone areas in the state are surveyed and communities are required to adopt state minimum standards.

Local governing units in Montana are in varying stages of floodplain insurance eligibility. All cities and counties are still eligible for federal floodplain insurance. However, HUD is required to furnish general floodplain boundary maps to affected communities and many have not yet received these maps. Once they do, they must adopt some form of land use regulations; if they fail to, federal floodplain insurance is no longer available to them. Cascade County is eligible for floodplain insurance and has recently been surveyed by the Department but refuses to adopt regulations conforming to state minimums. So, not only do they have flood insurance, but the Department administers their floodplain program. Many other communities could see this as an advantage and follow suit.

As more stream areas are surveyed, the potential for Departmental administration of these areas becomes greater. Because of limited staff and distances from Helena it will be increasingly difficult to administer more than a few such programs and an amendment to the law may be introducted by the Department requiring local governing units to manage this program.

While the relationship of Flooding Management Program to water quality is not obvious, certain kinds of developments in floodplains do contribute to a water pollution. Sewage lagoons, septic tank drain fields, and feedlots do contribute to water contamination, particularly during and proceeding flooding. The zoning of floodplain areas across the state and restrictions on land uses in those areas will certain result in better water quality.

Forest Conservation and Fire Protection (Title 28, Ch. 1) 1939 A

Administering Agency - Forestry Division

Legislative Summary

The Department of Natural Resources and Conservation has the authority to delineate and clarify the forest areas of the state constituting a forest fire hazard. Forest landowners are responsible for providing protection against the starting and spread of fires on these lands. Landowners may receive assistance in providing this protection through the county or through the state.

Each county is charged with a responsibility to provide rural wildland fire protection assistance. Counties may levy funds to assist in carrying out this task. The counties normally function in this capacity in the rangeland and scattered timber portions of the state.

In the heavier timbered areas of the State, the forest landowner may receive state fire protection by signing an affidavit contract with the state for his individual ownership, or he may join with other landowners in the formation of a forest fire district. Districts are formed by a majority vote of landowners owning a majority of the land in the district. Protection of these districts in provided directly by the State, or by the State subcontracting with other recognized agencies such as the U.S. Forest Service. If an owner of forest land classified as a fire hazard by the Board of Natural Resources and Conservation does not agree to provide fire protection, he may be assessed on a per acre basis for protection by the Department.

By proclamation and permits, the State Forester and the Firewarden (Forestry Division of the Department) may control access to areas designated as extreme fire hazard areas. The State Forester may also order cessation of all activities that might contribute to fire hazard.

Program Administration

All private land areas in the State have been assigned to one of two land classes according to potential fire hazard. These classes are: (1) Forest land; (2) Nonforest lands. Assessments for protection of forest lands within forest fire districts, or those under affidavit contract are based on actual costs incurred and within maximum limits established by state statute. Nonforest lands and improvements, if protected by the state, are protected at rates agreed upon by the state and the landowner.

Several options of fire protection are available to forest landowners:

1. Forest Fire Districts are formed in areas subject to greatest fire danger. A petition signed by 51% of an area's landowners owning 51% of the land, is sent to the Forestry Division which then supplies fire protection on an acreage assessment basis.

2. Affidavit Unit fire protection areas are formed through affidavits signed by single landowners to provide individuals with fire protection through contracts with the Division. The state provides protection directly, or through subcontracting with other recognized agencies.

3. County Cooperative Fire Protection Assistance (Districts) may be received (formed) by contracting with the Division. The division assists

in drawing up a fire plan, organizing local forces, training in wildland fire suppression, and supplying the county with fire fighting equipment. The county provides the volunteer fire fighters. Approximately 20 counties are participating in this form of protection - mostly in eastern Montana.

4. Areas receiving no fire protection still depend upon the county and local forces to respond to forest fires. The county must equip and train groups of people if landowners request - however, fire protection is less consistent and reliable under this system. State assistance must be reimbursed by the county if it is not entered in the program listed under #3 above.

Under the first three programs, 8½ million acres of forested lands and 12 million acres of grassland are provided protection.

Of the approximate 12.5 million acres of private forest, 30% or around 4 million acres have no organized wildland fire protection at all. The majority of areas west of the continental divide have formed districts and the Department assumes fire protection based on acreage charges.

Budget and Staffing

Approixmately $1,800,000 was spent last year for forest fire protection. Of this, around $200,000 was used to operate County Cooperative fire areas. The remainder was utilized in the operation of Forest Fire Districts and Affidavit Unit fire protection areas. Of the $1,800,000 total fire protection budget, $827,000 came from the general fund,

and $1,050,000 from the fire assessment program.

Approximately 254 persons are employed under this program. Of these, 40 are assigned to state forest lands. In addition, approximately 50 employees are hired for fire protection with funds supplied under the Federal Comprehensive Employment Training Act. As additional areas require fire protection, additional staff may be needed.

Program Evaluation

This is a fairly effective program because of its flexibility in meeting landowner needs. A variety of fire protection areas may be formed. Cost of fire protection on a per-acre basis is very reasonable. Additionally, the Division may provide fire protection for nonforested private lands depending on proximity to fire suppression equipment.

Division and county response to private land wildfires has been effective enough to suppress fires on approximately 20 million acres in fire protection districts and county cooperative areas last year. While its relationship to water quality is indirect the fire protection program minimizes denudation of large areas that could otherwise contribute to soil erosion losses and stream sedimentation.

Montana Major Facility Siting Act (Title 70, Ch. 8) 1973 A

Administering Agency - Energy Planning Division

Legislative Summary

A major facility is that which will generate electricity, produce gas, enrich uranium, or use or convert coal or a certain quantity or volume, or any addition to such a facility that will cost more than $250,000. Also included is any electric transmission line carrying more than 60 kilowatts, any geothermal use, or any pipelines associated with these facilities. Before beginning construction of any major facility, the person or company proposing construction must file an application for a certificate of environmental compatibility and public need with the Energy Planning Division.

A filing fee, based on a percentage of the total projected facility cost, is required to cover the costs of research and analysis related to the application. The application is also sent to appropriate state departments and local government officials and planning boards in the potential impact area for their review and recommendations. Depending on the kind of proposed facility, the Department then has up to one or two years to complete its studies. A hearing is begun by the Board of Natural Resources and Conservation not more than 120 days after its receipt of the studies. A decision granting, denying, or modifying the application must be made within 90 days of the last day of the hearing. The Board must consider a lengthy list of environmental, social, economic, and technical factors in reaching its decision. If the application is approved,

the department monitors the approved facility's activities to assure compliance. Any portion of the filing fee not expended after completion of the study must be returned to the applicant. Those firms with existing facilities as defined in this Act and those proposing additional construction to such facilities within ten years must annually submit long-range plans to the Department.

This act was amended in 1975 to provide for suspension of Board action on applications for a certificate of environmental compatibility for major facilities that would (a) generate at least 50 megawatts of electricity; (b) produce at least 100,000,000 cubic feet of gas daily; or (c) produce at least 50,000 barrels of liquid hydrocarbon products daily. (The proposed Colstrip 3 and 4 electrical generating facilities fall under these criteria.) After Board action on these facilities, the 1975 amendments mandated the completion of a long-term comprehensive state energy conservation policy and plan by the Governor's office and its submittal to the 1977 Legislature. The plan, prepared by the Montana Energy Advisory Council (MEAC), included proposals for a statewide siting inventory, alternative long-term growth goals, and a coordinated siting policy. The suspension of board action was terminated upon review of the proposed energy policy and siting plan by the 1977 Legislature.

Program Administration

The application provides the framework for the Division's research efforts. Required information includes: (1) energy distribution and destination patterns; (2) the type of energy produced; (3) the

way in which the facility will meet energy needs; (4) justification for the proposed energy form as opposed to alternative energy sources; (5) preferred site location over alterantives, including social and economic factors; (6) design of major facility components; (7) treatment of all out-going by-products; and (8) reclamation methods.*

Generally, funds provided through application fees have not completely covered the costs of department research. It is difficult to assess costs of hearings and legal action. Research funds, in the case of Colstrip 3 and 4, were divided between the Energy Planning Division, the Departments of Health and Fish and Game, and the University System as well as consultants. Departmental funds were used to cover excess costs associated with Colstrip and no money has been returned to an applicant yet.

The Division has received nine long-range plans for potential facility construction over the last year. Major facility proposals are: (1) Basin Electric's proposed construction of two 440 megawatt units in the northeast area of the state; (2) Circle West, an ammonia fertilizer plant contemplated by Burlington-Northern in eastern Montana with the primary proposed site located near Circle in McCone County; (3) Montana Power's proposed 330 megawatt plan possibly sited near Colstrip in Rosebud County; and (4) the Northern Light Dam, proposed for construction at Kootenai Falls in Lincoln County

* Department of Natural Resources and Conservation M.A.C. 36-2.8(1)-5800-5888

in northwestern Montana.

The Division does not expect any major applications until 1981. It also has no plans for drawing up an Energy Policy after MEAC's failure to get legislative approval for its proposal during the 1977 session.

Budget and Staffing

Presently, the Energy Planning Division has five staff members who are responsible for the Siting Act. Because of uncertain funding, this number could diminish. The Division would like to maintain 5 or 6 permanent staff members to address the latitude of concerns requiring their basic research efforts. The budget for fiscal year 1978 is $195,000. $245,000 is budgeted for fiscal year 1979. This appropriation is considered adequate to maintain a staff of 5-6 people.

Program Evaluation

This is considered one of the most progressive pieces of legislation enacted nationwide to manage and monitor major energy conversion facilities. Since passage of the act, 12 transmission line applications have been processed as well as the application for Colstrip 3 and 4.

One change in the present law would aid the department in its administrative responsibilities. This is finding a source of consistent funds to support an adequate full-time staff. Short term

funds from application fees result in high staff turnovers. The lack of experienced staff creates an inefficient research approach by this Division. A skeletal staff is supported in part by a percentage of money derived from the Electric Producers License Tax. Prior to 1976 these funds automatically reverted to the Division; now they are part of the General Fund. The Department must now request that appropriation from the legislature to maintain a core staff of even 5 or 6 people.

The Montana Water Use Act (Title 89, Ch. 8) 1973 A

Administering Agency - Water Rights Bureau

Legislative Summary

The Water Rights Bureau administers the state's water rights permit system, subject to such rules as the Board of Natural Resources and Conservation may adopt. The Department initiates district court action and the Bureau gathers the necessary data for adjudication on all existing surface water rights. In this process, the Bureau first notifies all water users with water rights existing prior to July 1, 1973 and submits information such as Water Resources Survey information, field findings and other data to the district court, which then issues water decrees to individuals. The Department has recently started this lengthy process in the Powder River Basin.

Another provision of the Water Use Act establishes a permit system for surface water rights. Anyone who proposes to impound, divert, or distribute water after July 1, 1973 must first acquire a permit from the Department. This is a lengthy process requiring individual and public notice to other water users in the area and a hearing if objections are made.

Another provision of the act is to provide political subdivisions the ability to plan for their future water needs. State and federal agencies, as well as political subdivisons of the state, may apply to the Board to reserve water for existing or future beneficial uses or for maintenance of a minimum flow, level, or quality of

water. Before an order reserving water may be adopted, the applicant must establish to the Board's satisfaction:

1. the purpose of the reservation;
2. the need for the reservation;
3. the amount of water necessary for the purpose of the reservation; and
4. that the reservation is in the public interest.

A water reservation, when adopted, becomes a water right. However, if the objectives of the reservation are not being met, the Board can later modify or revoke that water right. In addition, if the use of the reserved water requires its diversion or storage, progress must be shown towards completion of those facilities. Such progress is to follow a previously submitted plan.

In 1974 the legislature enacted a three-year moratorium that suspended action on applications for permits for appropriations of surface water or for certain changes of water use in the Yellowstone Basin. All large applications (diversions of over 20 cubic-feet per second or storage of over 14,000 acre-feet) for water use permits in the Yellowstone Basin were suspended until March 10, 1977, and applications for reservations in the basin by federal agencies were excluded until that date. A substantial number of applications, primarily for industrial water use, were suspended. Any water reservation approved prior to approval of the suspended permit applications has preference over those permits.

Due to procedural delays for hearings on the applications the 1977 Legislature extended the Yellowstone moratorium to allow time for completion of the required hearings. That extension expired on January 1, 1978, but has been extended by court order to a date not yet specified. It may not be extended beyond January 15, 1979 as specified by a statute enacted by th e1977 Legislature.

The Water Use Act also authorizes the department to petition the appropriate district court to stop illegal or wasteful use of water and to adopt rules to regulate the construction and use of wells in order to prevent contamination and pollution of groundwater.

Program Administration

The Water Rights Bureau is involved in the adjudication process in the Powder River Basin and is awaiting a federal court decision on jurisdiction of federal reserved rights in the Tongue and Big Horn River Basins. Due to a limited budget and personnel, adjudication of water rights in the Yellowstone River Basin is expected to take approximately 40 years. The Bureau's adjudication staff is currently involved in the adjudication of existing water rights in the Powder River Basin. The balance of the Bureau staff is involved in processing about 1,100 permit applications per year and about 2,500 Notice of Completions* for groundwater use under 100 gallons per minute. The processing of applications for reservations has been done by existing staff but this severely limits the number

* A Notice of Completion is filed after a well has been drilled to expedite the process of obtaining a water right.

of applications for permits that can be processed annually.

Adjudication of Existing Water Rights

In determining existing (pre-July 1973) water rights, the Department selects an individual drainage basin for adjudication.** It then petitions the local district court to order all water users to declare and submit their water claims to the Department within one year's time. Through this process, three types of water rights could be recognized by this court: 1) Use rights - the diversion and use of water establishes a water right on most streams; 2) Filed rights - Notices of Appropriation filed with a county clerk after posting notice at the point of diversion and use of the water establishes a water right; and 3) Decreed rights - disagreements as to stream use often lead to court action and adjudication of individual water rights along major stream sections.

In making claims during a general adjudication, water users must indicate information such as the original appropriation and date of initial use, quantity of water used, place and means of diversion, and dates of water use. This information is later verified through field investigations by Department staff. Departmental recommendations for each claim are then submitted to the court which then issues the water decrees. A Preliminary Decree is first issued, and if no objections are filed, a First Decree is then issued. This

** The Powder River Basin in Southeastern Montana is the first Basin being adjudicated.

specifies each water right in the adjudicated area and is final. Certificates of Water Rights are then issued to each owner.

New Rights

All appropriations of surface and ground waters after July, 1973 must be permitted through the DNRC. Before impounding or diverting water or drilling a well with a volume exceeding 100 gallons per minute, a person must apply to the Department for a Permit to Appropriate Water.

A form requesting the intended use, location, amount of water, and purpose of the project is completed and sent to the Department along with an application fee. The Department is required to issue a permit if the following criteria are met: 1) unappropriated waters do exist, 2) there will be no adverse effects to prior appropriators, 3) proposed diversion and construction plans are adequate, 4) the water will be put to beneficial use, and 5) other permit water users will not be affected. Anyone applying for the use of 15 cubic-feet per second or more of water must show "clear and convincing evidence" that prior rights will not be affected. If it appears that adverse affects to other water users may occur, these users are notified by the Department and an application notice is published in local newspapers. If objections filed by affected water users are considered valid, a hearing is held and a Final Order is issued by the Department's Water Resource Division administrator.

An issued permit is provisional until the area is subject to adjudication. When adjucation of existing rights is complete, a Certificate of Water Right is issued. The Department may modify or deny the application for permit so as to meet the criteria set out in the statute.

EIS Consideration

All applications for water use permits must be evaluated for envrionmental impact. Under the Montana Environmental Policy Act the Department may decide that a request of over 15 cubic feet is a "major action" and requires the preparation of an Environmental Impact Statement. Under the statute 89-8-102.2 a few may be assessed to the applicant for preparation of the EIS.

Water Reservations

Government agencies, such as municipalities, counties, conservation districts and federal agenices may apply for water reservations. This process applies to large quantities of water that will be used at future times and will provide public benefits. A reservation must receive approval from the Board of Natural Resources and Conservation but is still subject to prior water rights. In either case, the permit or reservationholder must show progress in constructing the project, diverting water, and beneficially using the water.

Budget and Staffing

The program employs 42 full-time persons. Seven are working in the Powder River Basin and the remainder, including 26 employees hired with funds made available under the Federal Comprehensive Employment Training Act, on new appropriations. Approximately $356,000 have been budgeted yearly since passage of the law for the water rights program. It is estimated that it will cost $1,200,000 just to provide information to the court before water decrees are issued in the Powder River. At its present rate, total cost of adjudication for the state could exceed $40,000,000.

If the adjudication alternatives mentioned in 1) are legislatively approved, the Water Rights Bureau will require 3 to 8 times the existing number of field inspection staff. Field inspection would be reduced to 15-20 years, rather than the 100+ years presently projected to complete the process.

Program Evaluation

While many of the administrative mechanics of the law are necessary to document water use, the program could be altered to expedite the adjudication process. Under existing law, adjudication is a basin-by-basin process and could continue for over 100 years with current staff and budget. Within the Powder River Basin, approximately 70% of the water users claims were based upon use rights for which no records existed. The majority of those claims were improperly completed. For this reason, field offices at Broadus and Miles City were established to help water users document their claims. All

landowners within the Powder River Basin were notified by certified mail to file claims of their water use. Once a water user files his claim with the Department, it is the Department's responsibility to survey the claim and gather other data for the court to issue a preliminary decree.

The Water Rights Bureau suggested several amendments to the law:

1) That the adjudication process be speeded up by establishing three to five water courts to serve the state's major drainages and providing a 5-year period for the filing of existing water rights. This provides for the simultaneous adjudication of water rights in several basins and reduces the process from over 100 years to 15-20 years.

2) That the water user be responsible for validating his claim and not rely on the Department to gather the data necessary for the court to issue a preliminary decree.

3) That the state rely on the claimant to pay part of the costs of adjudication rather than use general fund money as has been done to date.

4) That provisions be added to protect streams from dewatering. The Department of Fish and Game is presently requesting flow reservations on some rivers for this purpose. Reservation requirements alone do not provide protection against stream dewatering, since senior water rights may use all existing flow in dry years.

Reservations as well as regulation and monitoring of water rights are the only statutory way of protecting present instream flows. A major problem is the need to establish minimum flows in the streams around the state to protect recreational values and existing water quality.

Provisions for stopping the wasteful use of water are difficult to enforce and depend upon complaints from downstream water users. Many irrigation distribution systems are inefficient and would be costly to renovate. A farmer may divert the entire water supply he is entitled to and waste much of it. There has been no litigation yet but conflicts are expected as the adjudication process continues.

There is an inherent conflict between water quantity and quality. Agricultural water appropriations can result in a low enough stream flow (de-watering) to affect quality. Irrigation return flows could constitute a large part of the stream volume and result in water high in dissolved salts. The Health Department is authorized to request water reservations to maintain water quality to protect a stream from further degradation due to over-appropriation.

Renewable Resource Development Act of 1975 (Title 89, Ch. 36) 1975 A

Administering Agency - Water Resources Division

Legislative Summary

This act establishes a renewable resources fund and appropriates to it 2½ percent of those monies collected from the strip coal mines license tax. The Board of Natural Resources and Conservation is authorized to make loans from this fund to qualified and competent ranchers and farmers for water conservation or development projects. Eligible projects include the construction or improvement of dams and reservoirs for irrigation, stock watering, domestic use, fish and wildlife, recreation, and sedimentation and erosion control. Surface or groundwater may be developed for the same purposes. Under the law, the department reviews the application and prepares a recommendation which the board may approve or reject. Periodic field reviews and reports by the Department insure compliance with the loan agreement. This section of the act dealing with loans has been declared unconstitutional (see Program Administration.)

The Department may also recommend to the Governor that grants from this fund be made to any department or agency of state government, or any other state or local political subdivision for purchase, lease or construction of projects for the conservation, management or development of the land, water, fish, wildlife, recreational and other renewable resources of the state. Grants are not available to local governing bodies unless they are sponsored by an entity of state government. The Governor submits those grant proposals having his approval to the legislature for its final approval.

Program Administration

Under the renewable resource program, there are three funding categories: (1) loans to individual farmers and ranchers, (2) grants and loans to entities of state government, and (3) loans to local governments. Loans and grants from this Department comprise only a portion of any local program proposal and federal matching funding must be available to local governing bodies before loans and grants can be utilized.

Individual loans for agriculturally related proposals required only bonding and board approval. However, in May of 1977 this funding category was declared unconstitutional by the Montana Supreme Court. The Court found that the law did not provide proper guidelines or criteria for approving this type of loan. The Department will offer amendatory legislation to the 1979 Legislature to correct this section of the law.

State Department Loans - under this section of the law, the Health Department received approval for a loan of 2 million dollars for its solid waste program. This money is available to the Health Department but the law requires that bonds be issued by the Department before the funds can be used.

Local Government Grants. Five grants to local governing bodies have been approved: (1) constufction of recreational facilities for the Boulder River Reservoir south of Boulder for $500,000, (2) construction of water distribution works for the West Bench Irrigation

District in County for $90,000, (3) reconstruction of a spillway at Nevada Creek north of Avon for $50,000, (4) an interim water adjudication study to be completed by the Legislative Council for $60,000 and (5) implementation of a Health Department solid waste disposal planning program for counties for $300,000.

Budget and Staffing

The Water Development Bureau administers this program and originally had a staff of six people. Because of the decreased funding available as a result of the Supreme Court's decision, two staff members are now attached to the program and approximately 20% of one person's time is spent coordinating the program. The remainder of his time and all of the other person's time is for technical support. Budget estimate for FY 70 is approximately $45,000. Any future staff expansion cannot be predicted.

Program Evaluation

This law depends upon a percentage of the coal severance tax for its funding. Presently, several coal companies are paying this tax under protest, which would delay or eliminate this funding. This could, in effect, place a moratorium on the use of the funds for a number of state-administered programs. However, Governor Judge has indicated that Montana may continue to utilize coal tax funds through the course of the lawsuit.

Presently approved projects will have little effect on water quality. Several eligible projects; such as stock watering ponds and dams for sediment and erosion control could have the effect of improving

or monitoring water quality.

DEPARTMENT OF STATE LANDS

Three laws administered by the Department of State Lands have some of the most direct impacts on water quality. These laws regulate hard rock, open cut, and strip mining as well as agricultural practices that produce saline conditions. These affect the amount of dissolved solids found in surface and groundwater.

Reclamation of Mining Lands, Hard Rock Law (Title 50, Ch. 12, R.C.M. 1947)

Administering Agency - Hard Rock Bureau

Legislative Review

Under the authority of the Hard Rock Law, the Board of Land Commissioners regulates the exploration, development, and operation of mines for any ore, rocks, or substance other than oil, gas, bentonite, clay, sand, gravel, phosphate rock or uranium. The law requires that a person must obtain an exploration license from the Board before engaging in mine exploration. Prior to issuance of a license, the applicant must agree to reclaim any surface damage as a result of exploration and to file a reclamation and revegetation bond with the Department of State Lands.

To develop and operate a mine, permits must be obtained from the Board. Failure of the Board to act on a permit application within 60 days after receipt of the application constitutes approval. The Board, however, may request additional information from the applicant and extend its review time up to a year from application

receipt. The Board may deny the permit if (1) the plan for development, mining or reclamation conflicts with the state air and water quality standards, or (2) the reclamation plan does not provide an acceptable method for accomplishing reclamation as required by the act. If the land is not reclaimed by the operator, the Board may provide for its reclamation and hold the operator liable for all costs.

"Small Miners" are exempt from the law and its permits if they annually agree in writing that no stream will be polluted or contaminated, that human and animal life will be protected, and that no more than five acres will be disturbed at one time and not reclaimed. A 1977 amendment defines a "small miner" as a mining operation that does not remove over 36,500 tons per year. The name, location, or amount of ore product from the mine is not available for public use and comes under a confidentiality clause protected by the Department.

Program Administration

This law is similar to the Strip and Underground Mining Acts in that permits are required prior to exploration, development, and operation of the mine. If the plan violates the state air and water quality standards, the Bureau notifies the mine operator of their recommendations or needed changes. To date, all operators have complied with proposed changes.

Under this law, more than 90% of the reclamation has been completed by miners. An operating permit is denied if the miner cannot pro-

vide plans to bring the water discharge up to receiving stream standards. Due to the lack of specific language in the original Hard Rock Law, the number of companies that were in need of a permit, and the staff shortage in the Hard Rock Bureau, some of the first permits issued had rather liberal conditions imposed. Exemptions for small miners are broad enough as to exclude all but the extremely larger mine operations. Under the original provisions of law, any miner disturbing less than five acres and removing no more than 100 tons per day was exempt from the law (see legislative summary). The 100 ton per day provision was changed by the 1976 Legislature to allow the miner to remove up to 36,500 tons a year. Although this still amounts in a 100 ton daily average, many mines operating only 3-6 months out of the year can remove from 200-400 tons daily and still be exempt. Some miners are exempt under this amendment who previously were not.

Budget and Staffing

The Hard Rock Bureau of the Reclamation Division employs four people, who handle office duties and conduct field inspections. No additional staff members are proposed for the Bureau.

Two Federal Hard Rock Laws may be considered by the U.S. House of Representatives and the Senate. These are the Mining Law of 1977 and the Mineral Development Act of 1977. If one of these passes, the state's Hard Rock Law will require upgrading to meet federal standards. This could mean the addition of new staff because of additional requirements that could be placed on small miners. Total

budget of the Reclamation Division was $479,000 in FY 1977 and approximately $400,000 for FY 1978.

Program Evaluation

Unlike the Strip Mine Acts which provide a variety of criteria to evaluate for approval or denial of the mining phases, the Hard Rock Law provides little guidance for decision-making. Some of the problems in administering the law are:

1) The small miners exemption exludes so many significant mining operations that only a handful come under state review. For instance, in Lewis and Clark County,of 171 operating small mines only one required a permit.

The fine for violation of the law is $100 maximum for small miners. That is not enough for the state to complete reclamation where violations occur.

2) Some abaondoned mines have historic reclamation problems. These old mines may have surface water seepage from shafts or tunnels and are difficult to control. What is often needed are a series of settling ponds to provide treatment prior to water release into streams. Because of the impracticability of contacting the original mine owners, the responsibility for correcting water discharge problems falls upon any individual or corporation who files on and begins operation of the abandoned mine. Reclamation expenses preclude the re-opening of many of these mines.

3) Because of the Hard Rock Law's confidentiality provision, departmental employees cannot disclose information relating to operations covered by a small miner exclusion statement, or information contained in an application for an exploration permit. Therefore, the Health Department cannot legally be notified by State Lands' employees of any water pollution occurring at such a mine. Unmonitored pollution could potentially create serious water quality problems.

The Montana Strip and Underground Mine and Reclamation Act (Title 50, Ch. 10) 1973, and

The Strip and Underground Mine Siting Act (Title 50, Ch. 16) 1974

Administering Agency - Coal Bureau

Legislative Review

Together these two major laws authorize Montana to regulate strip and underground coal and uranium mining activity. The Strip and Underground Mine and Reclamation Act primarily addresses prospecting and mining activities. The Strip and Underground Mine Siting Act concerns siting of new mines and preparation of sites for mining. These laws provide that permits for prospecting, mining, and mine site location may be denied if any of the following circumstances prevails:

1. The operation or reclamation cannot be carried out conssitent with the purposes of the law;

2. The land to be affected has special, exceptional, critical or unique characteristics, or the proposed activity will adversely affect neighboring land with such qualities. Factors that would qualify an area as special, exceptional, critical or unique include the area's biological productivity, ecological fragility, ecological importance, or scenic, historic, archeologic, topographic, geologic, ethnologic, scientific, cultural or recreational significance;

3. Substantial deposition of sediment in streambeds, subsidence, landslides, or water pollution cannot be prevented; or

4. The operation would constitute a hazard to urban developments, roads, streams, lakes, or other public property.

Prospecting permits are required under the Strip and Underground Mine Reclamation Act. Before the Department of State Lands gives final approval to the prospecting permit application, the applicant must file a reclamation and revegetation bond with the Department. Reclamation of the land affected by prospecting may be postponed if the area is to be mined and will be incorporated into an overall mine reclamation plan.

Program Administration

The Reclamation Act is administered by the Department's Coal Bureau and requires individual permits for (1) mine exploration, (2) development of mining facilities, and/or (3) operation of the mine. Reclamation plans and bonds are required for each stage to assure completion of each mining phase. If the mining operator continues to the next mining stage, reclamation is postponed until all phases are completed. To date no bond has been forfeited by operators. Bonding has been adequate to cover the cost of reclamation except in one case where the Department is in the process of revoking a bond that was too low in its original assessment.

Before mining can begin, the mining company must carry out a survey of the area's wildlife, vegetation and hydrology. In addition, it must complete an overburden analysis to determine the character of the coal-bearing seam and its overlying sediment. A series of holes are drilled to determine depth of overburden and thickness

of the aquifer that contains the coal. This determines the mining practices to be used to minimize aquifer damage. In addition, any toxic substances occurring in the overburden must be specially handled to prevent surface deposition or placement in such a way to prevent its leaching into groundwater.

After reclamation, a minimum five-year bonding period provides for water quality monitoring by the mining company of both surface and subsurface waters.

Budget and Staffing

The Coal Bureau employs nine staff members. Three are located in Billings and devote approximately 60% of their time inspecting coal and uranium mining operations in Eastern Montana. Their remaining time is spent in inspecting and administering other open cut mining activities including sand and gravel operations and bentonite shale mining. The Bureau will hire a mining engineer in the near future and because of Federal Law #95-87, "Surface Mining control and Reclamation Act of 1977," four more staff members are expected to be added in the next several years. The Federal law requires that alluvial valley floors and prime agricultural lands receive speical consideration prior to surface mining. Total budget for the Reclamation Division was approximately $351,000 in FY 1976, and $379,000 in FY 1977. This year's budget is $399,000 and includes all reclamation responsibilities of the Department. A substantial increase in the budget will be needed to hire the four additional staff members.

Program Evaluation

This law is considered one of the more stringent laws nationally for the control of strip mine operations. However, due to the inadequacy of information and lack of long-term experience, final reclamation results are uncertain at this time. There are still a number of unresolved questions concerning the types of surface revegetation required to prevent erosion, whether reclamation can provide vegetation which will sustain equal or greater livestock or wildlife use, and concern regarding surface subsidence and soils and spoils toxicity.

Coal seams act as aquifers and their disturbance and replacement can drastically alter the groundwater flow. The oldest coal mine spoils in the state (approximately 50 years old) contain water that is generally higher in dissolved solids than water in undisturbed aquifers. There are still no accepted standards for strip mine reclamation to assure minimal groundwater pollution. Wells and surface waters in the vicinity of the mining operation are monitored for pollution. A recent USGS study in northern Wyoming indicated the possibility of severe water quality problems associated with disturbing coal acquifers.*

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Saline Seep Control Program (Chapter 100, L. 1975)

Administering Agency - Land Administration Division

Legislative Summary

The 1975 Legislature passed a law to establish a temporary saline seep program for FY 1975-1977. The law required the Department of State Lands to develop and implement a program for the control of saline seep, and among other things to:

1. implement necessary agricultural practices and technology that will prevent or correct saline-alkali damage;

2. appraise and monitor the extent, nature and severity of saline-alkali damage;

3. develop vegetation species useful for the reduction or correction of saline-alkali damage; and

4. develop technology useful in the detection of saline-alkali damage.

Program Administration

Impetus for formation of the saline seep program came from the Highwwood Bench Alkali Control Association in Choteau County. Partly as a result of its activities the Governor's Emergency Committee on Saline Seep recommended that a program be established for the study and control of saline seep problems. Following their recommendations, the 1975 Legislature appropriated to the Department

of State Lands $10,000 for FY 74 and $255,685 for FY 75. The Governor directed the Depa-tment to establish and coordinate a statewide Saline-Alkali Control Program. In April, 1974, the Governor appointed a seven-member Saline-Alkali Advisory Council to assist the Department in establishing the program.

During the 1975 Legislative session, the Saline Seep Control Act was passed authorizing the program under the Department of State Lands through June 30, 1977. Appropriations of $220,769 for FY 76 and $235,794 for FY 77 were also made to continue the research and control projects and activities.

In June of 1975, the Governor appointed a new nin-member Advisory Council consisting of five agriculturists and four state agency representatives to offer assistance and guidance to the Department in carrying out the program. During that year, several agencies were funded for research projects. There were: the Montana Bureau of Mines and Geology, the University of Montana, Montana State University, the Department of Health, the U.S.D.A. Agricultural Research Service, the Soil and Water Conservation Districts, and the Paradise Irrigation District in Blaine County. The major programs undertaken to fulfill legislative objectives were: 1) mapping the extent and severity of saline seep, 2) studying the process of salinization, 3) developing reclamation methods for saline soil areas, 4) developing dryland cropping methods to prevent and control saline seep spread, 5) determining vegetation most tolerant to salty soils, 6) using photographic and mechnical methods to detect saline seep areas. Additional, MSU was granted $49,000

to develop a "no till" drill system of crop planting.

An educational program consisted of oral and slidepresentations in known saline seep areas, compilation of an education folder, and a series of spot announcements on television and radio describing the process of salinization and use of preventative agricultural practices.

The 1977 Legislature provided "phase-out" funds for research programs and transferred information responsibility to Conservation Districts.

Even though the Department of State Lands and the Saline-Alkali Advisory Council recommended extension of the Saline Seep Control program, it is now being phased out and will end sometime in mid-1979.

Budget and Staffing

Since 1974, approixmately $822,000 has been expended for the Saline Seep Control Program. $40,000 is budgeted for phasing out the program through FY 1979. Staff members numbered one in 1974 and three from 1975-77. Presently one person monitors the use of phase-out funds.

Program Evaluation

It is difficult to assess the usefulness of a short-term program. Because it has had four administrators over a four-year period, no one person could comprehensively describe the program. All of the

major components of the program mentioned above accomplished someting of value in understanding the saline seep process. The various agricultural practices developed as a result of funded research efforts could, if used, reduce the acreage affected by seep. Trying to get farmers to modify or change their cropping practices, however, would take time and a major educational effort.

Agricultural practies in areas of high groundwater tables can produce saline seep conditions. The alternate crop and fallow system of dryland farming produces nitrates which leach into shallow groundwater aquifers that can find their way into nearby wells and contaminate them.

Enough is known about the process of mitigating soil salinity and preventative cropping practices to carry out a program for largely eliminating saline seep conditions in the state.* The second phase of the program, that of implementation through the use of adapted agricultural practices, will be the responsibility of the local Conservation Districts. The enabling legislation for the districts requires a referendum for approval of preventative agricultural practices before they can be implemented.

* Grain farmers on the Highwood Bench have been applying modified cropping practices to areas affected by saline seep, with positive results. One farmer, using researched dry cropping techniques, reduced his land area affected by high salinity from approximately 100 acres to fewer than 5 in six to seven years. (Discussion with Les Pederson - Health Department and former coordinator of Saline Seep Program.)

ACT	Decision Making Authority	Direct Regulatory Authority of Land/Water Resources	Indirect Influence on Land/Water Resources	Board or Commission Review	Initial And/or Follow-up Inspection	Bonding, Permits, Licenses, Fines	Funding Source
DCA							
Coal Impact	Coal Board		Grant approvals to date have been primarily for sewer and water treatment and distribution systems.	Coal Board review and approval of applications		Bonding required at local level to match grant money	Coal Severance Tax
F&G							
Streambed and Land Preservation (Private)	Conservation District Supervisor or County Commission, as last resort - local arbitration panel	Inspection team may recommend approval or denial or modification of private construction altering stream			Field staff do check a few completed projects		State General Funds appropriated by legislature
Stream Preservation Act (State & Local Government)	F&G Commission	Commission approval of state or local government projects impacting streams		Commission acts on recommendation by Ecological Services Division	Field staff do check some completed projects-complaint oriented	Projects constructed in violation of regulations assessed $100-1,000 fine	
DNR							
Water Use	Water Resources Division staff makes recommendation to District Courts who issue water decrees. Board issues permits for unappropriated water	District Court		Board review & approval of permits for unappropriated water prior to impounding or diverting that water	Field inspection team verifies existing rights and makes recommendations to District Court		State General Funds

ACT	Decision Making Authority	Direct Regulatory Authority of Land/Water Resources	Indirect Influence on Land/Water Resources	Board or Commission Review	Initial And/or Follow-up Inspection	Bonding, Permits, Licenses, Fines	Funding Source
Slash Disposal	Forestry Division		Timber operator required to have fire hazard reduction agreement with Forestry Division - requires disposal of slash debris by operator		Field inspector reviews some of cleared areas for compliance	Bonding required for slash disposal assurance	Inspection fee charged for timber review
Major Facility Siting	Board of Natural Resources		Application requires description of method of by-product treatment and methods of reclamation	Board review of application and decision to grant or deny			Applicant filing fee and Electrical Producers License Tax support staff
Floodway Management	Board approves floodplain and floodway delineation and governing body regulates uses in delineated area	Board or governing body has authority to restrict land uses in designated floodplain areas		Board reviews governing body proposed regulations and approves or disapproves		Permit required of landowner prior to developing area in floodplain	State General Funds
Renewable Resources	Board approves loans and Legislature approves grants		Loans to individuals for ag-related dams and reservoirs State & Local Government grants for agricultural and recreation-related water projects, solid waste disposal, etc.	Board reviews and approval of loands			Coal Severance Tax - must be matched by federal funds

ACT	Decision Making Authority	Direct Authority of Land/Water Resources	Indirect Influence on Land/Water Resources	Board or Commission Review	Initial And/or Follow-up Inspection	Bonding, Permits, Licenses, Fines	Funding Source
Forest Fire Protection	Forestry Division		Establishment of Fire Districts, County Fire Districts, and Individual agreements provides fire protection which helps reduce runoff and associated sedimentation.			Petitions, Contracts, and Affidavits assure protection through Division agreements	State General Fund and Fire Assessment Program
Oil & Gas Conservation	Oil & Gas Conservation Commission		Commission requires permits & licenses for exploratory work, drilling and well operation. Bonding required for land reclamation.		Field staff inspects oil, gas wells for proper drilling, casing methods, see that abandoned wells are capped & land reclaimed prior to bond release.	Permits required for well drilling. Bonding required to ensure reclamation. Privilege & License tax paid on every barrel of crude oil produced.	Earmarked revenue funds from permits and license taxes.
State Lands							
Saline Seep	Saline Seep Advisory Council made grant decisions		Grants awarded for dection and control of saline areas resulted in developing methods for saline detection and dry crop technique minimumizing seep problem.	Saline Seep Advisory Council - final grant authority	State lands depends upon completion reports & did some field inspection		State General Fund
New Hard Rock Law	Board of Land Commissioners	Board requires exploration & development permit for mining	Because of confidentiality requirements Board depends on Health Department to detect water pollution.		Field inspection team of two.	Bonding required for reclamation - $100 fine for small miners if violate act - permits required.	General Fund

ACT	Decision Making Authority	Direct Regulatory Authority of Land/Water Resources	Indirect Influence on Land/Water Resources	Board or Commission Review	Initial And/or Follow-up Inspection	Bonding, Permits, Licenses, Fines	Funding Source
Mine Reclamation and Siting Acts	Coal Bureau	Permits required for prospecting, developing & operating mine from Bureau. Surface & groundwater monitored for pollution.		Coal Bureau reviews and approves mining and reclamation plan	Three staff members in Billings devote time to mining inspection	Bond required for reclamation and revegetation	General Fund